

CLAIMS

1. A method for filtering a video signal, the video signal being received by a secondary radar, the filtering being designed to precede the detection of SSR responses, the received signal comprising samples intended to be analyzed according to the method, in which method for a sample under analysis :
- 5 - at least one instantaneous power (S4) of the received signal is estimated (T1), the power being estimated on the basis of determined signal samples, said samples at least leading or lagging by a duration greater than a duration T with respect to the sample under analysis, the duration T being the duration of an SSR response ;
 - 10 - a threshold (S5) is determined, the threshold being at least equal to the estimated power ;
 - if the power of the sample under analysis (S1') is less than the threshold, the sample is filtered.
- 15 2. The method as claimed in claim 1, in which at least two instantaneous powers are estimated, a first instantaneous power being estimated on the basis of samples that lead with respect to the sample under analysis, a second power being estimated on the basis of samples that lag with respect to the sample under analysis, the threshold being at least equal to the
- 20 maximum of the estimated instantaneous powers.
3. The method as claimed in claim 1 or 2, in which each instantaneous power is estimated using the peak value of the samples received for a duration τ , the duration τ being at least equal to the sum of the duration of a pulse and of
- 25 the maximum duration of absence of signal in a message of a response to be filtered.
4. The method as claimed in claim 3, in which each instantaneous power is estimated by averaging several successive peak values, the successive peak
- 30 values being at least separated by the duration τ .
5. The method as claimed in any one of the preceding claims, in which the duration T is substantially equal to 24.6 μ s.

6. The method as claimed in claim 3, in which the responses to be filtered being mode S responses, the sum of the duration of a pulse and of the maximum duration of absence of signal is equal to 1.5 times the modulation
5 period of the message of a mode S response.
7. The method as claimed in any one of claims 3 to 6, in which the duration τ is substantially equal to $1.6 \mu\text{s}$.
- 10 8. A secondary radar comprising means for implementing a method as claimed in any one of the preceding claims.